

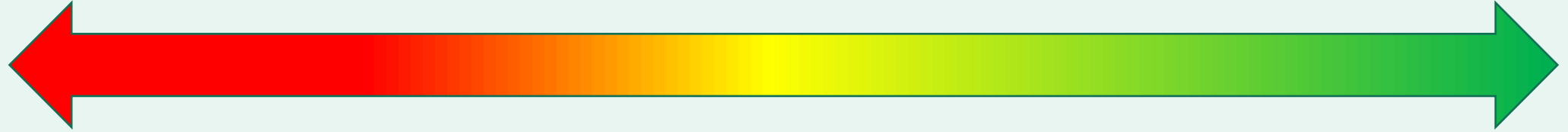


# Visual Waste Index- ADEC's Inspection Form

ADEC Solid Waste Program



# Landfill Inspection Scoring



**0% - 100%**

The higher the inspection score, the more protective the landfill is being of human health and the environment

The lower the inspection score, the less protective the landfill is being of human health and the environment

Community Waste Management Index								
Special Waste Management								Score
#	Category	0	1	2	3	4	5	
6	Salvage Area	Public salvaging, if allowed, must be limited to an area that does not hinder facility operation, create a safety hazard, or cause pollution. 18 AAC 60.220						
		Uncontrolled salvaging allowed at working face	Salvaging at working face only when operator present	Separate salvage area, no apparent organization or management	Separate salvage area, some organization or management.	Salvage area has defined locations for different items, fluids are drained or contained (liner), operated safely	Salvage area managed well (see 4), items removed for disposal or backhaul regularly - signs posted	
7	Used Oil	Separating used oil out of the waste disposed at the landfill will help keep petroleum products out of the landfill and the environment, and can be reused as an energy resource for the community.						
		Used oil not managed - disposed at the landfill	Some used oil collected, not stored safely, no plan for disposal or energy recovery	Some used oil collected, not stored safely, burned without energy recovery	Used oil collected, stored safely. Burned without energy recovery	Used oil collected and safely stored. Burned for energy recovery or shipped out	Enforcement of used oil collection and safe storage. Burned for energy recovery in an EPA approved unit or shipped out	
8	Vehicles	Vehicles may not be disposed at the landfill unless all fluids and batteries have been removed. If undrained vehicles are stored at the landfill for later disposal or recycling, they must be managed to prevent release of fluids. 18 AAC 60.035, 18 AAC 60.010						
		Uncontrolled disposal - Vehicles disposed in landfill, fluids & batteries not removed	Vehicles stored in separate area of landfill, no fluids or batteries removed. No containment for leaks. No plans for disposal or recycling	Vehicles stored in separate area of landfill, some fluids or batteries removed. No containment for leaks. Plans for disposal or recycling	Vehicles stored in separate area of landfill, some fluids or batteries removed. Containment for leaks. Plans for disposal or recycling	All batteries and fluids removed prior to proper disposal or recycling	Operator verifies ALL batteries and fluids removed prior to proper disposal or recycling	
9	Freezers & Refrigerators CFCs	Chlorofluorocarbon (CFCs) must be removed from appliances by a certified technician with certified equipment prior to disposal at any landfill. No CFCs may be vented to the environment. 40 CFR 81.154-162						
		Disposed of with general waste, CFCs intentionally vented to the environment	Disposed of with general waste, no CFCs removed	Some units segregated, no CFCs removed and no plan	Some units segregated, some CFCs removed but no document	Units segregated, CFCs sporadically removed	Units segregated, CFCs removed and documented	

# Setting Realistic Goals

**No one expects you to jump from a 0 to a 5 right away**

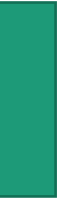
- Start small
- Focus on realistic incremental improvements you can do
- Look for low cost solutions- i.e. make signs yourself with materials you already have
- Give yourself time to reach your goals
- Outreach and education, i.e. informing the community, goes a long way
- Everyone was new once- it's ok to give yourself time to improve

Helpful hint: A good place to start is with IGAP. If your City and Tribe are not communicating & collaborating- start there!



# Landfill Site Control

- Landfill Site Control
- Signage
- Access Control





**Landfill Road Maintenance**

Landfill access and onsite roads under the operator's control must be kept passable and safe for vehicles during normal hours of operation. 18 AAC 60.220

Landfill not accessible for more than one month per year

Landfill usually accessible, roads barely passable, history of being inaccessible for more than one month

Landfill generally accessible year round, history of being inaccessible for less than one month

Landfill generally accessible year round, history of minor problems

Landfill accessible year round, roads to and in landfill occasionally maintained

landfill accessible year round, roads to and in landfill actively maintained



Signage

A clearly legible sign must be posted at the entrance to the landfill. The sign must prohibit disposal of regulated hazardous waste and polychlorinated biphenyl (PCB) waste. Signs should identify the owner or operator, hours of operation, and emergency contacts. Signs should also direct users where to dispose of special wastes. 18 AAC 60.240					
0	1	2	3	4	5
No signs at the landfill	Signs in poor condition, unreadable	Basic information on where to dump waste and/or entrance sign	Basic information on where to dump waste and list of prohibited waste and/or entrance sign	Information on where to dump waste, list of prohibited waste, entrance sign, and burning instructions (if applicable)	Detailed information on where to dump waste, list of prohibited waste, complete entrance sign, burning instructions (if applicable), and alternative disposal methods





# More Signage





2013



2014



2016



# Signage That Went From a 5 to a 0 and Then Back to 5

2016



# Signage Template



**PROHIBITED WASTES**

Waste Oil	PCB's
Bulk Liquids	Antifreeze
Medical Waste	Explosives
Hazardous Material	Paint / Solvents
Commercial Construction Waste	Asbestos
	Polluted Soils

**CHALKYITSAK LANDFILL**  
Operated By Chalkyitsak Village Council

**MUNICIPAL SOLID WASTE ONLY**

Emergency Contact: IGAP or Chief  
**848-8117**

**PLEASE TAKE THE FOLLOWING ITEMS TO THE RECYCLING CENTER**

Lead-Acid Batteries	Used Oil
Household Batteries	Electronics
Fluorescent Lights	Liquids & Chemicals

**Thank You For Keeping Our Community Clean For The Future**

**DO NOT INCINERATE (BURN)**

Aerosol Cans (Hair Spray, Spray Paint, etc.)  
Pressurized Cylinders  
Household, Boat, or ATV Batteries  
Highly Flammable Liquids  
Explosives (Unused Ammunition Or Fireworks)  
Rubber and Plastic Products

**In General Do Not Incinerate Any Items That May Create Black Smoke**

.080" X 24" X 48" Aluminum White Reflective Signs With Green Hp Vinyl Graphics.  
\$295.00 each x 4 = \$1180.00.



EMAIL: [vital-signs2010@live.com](mailto:vital-signs2010@live.com)  
MAILING: P.O. Box 61077  
Fairbanks, Alaska 99706  
SHIPPING: 1 Mile Dale Road  
Fairbanks, Alaska 99709  
PHONE: 907 479-7999  
FAX: 907 456-6797

SKETCH FOR:

Patricia Salmon  
Chalkyitsak Village Council  
12 Sept.  
©2016 VITAL SIGNS, INC.

PAINTS/ SOLVENTS	LEAD-ACID BATTERIES	DISPOSE OF ANIMAL CARCASSES HERE	NO SHOOTING
PLASTICS #1 & #2	ALUMINUM CANS	FLUORESCENT LIGHT BULBS & TUBES	AEROSOL CANS
PLASTICS ALL OTHER	BURNABLE WASTE	INK CARTRIDGE TONERS	
PLASTIC BOTTLES	USED OIL	ELECTRONIC WASTE	

.080" X 12" X 18" Aluminum White Baked Enamel Signs With Green Hp Vinyl Graphics.  
\$70.00 each x 14 = \$980.00.



EMAIL: [vital-signs2010@live.com](mailto:vital-signs2010@live.com)  
MAILING: P.O. Box 61077  
Fairbanks, Alaska 99706  
SHIPPING: 1 Mile Dale Road  
Fairbanks, Alaska 99709  
PHONE: 907 479-7999  
FAX: 907 456-6797

SKETCH FOR:

Patricia Salmon  
Chalkyitsak Village Council  
12 Sept.  
©2016 VITAL SIGNS, INC.

Quiz: Somethings not quite right. Can you find it?



Access Control	Access to the landfill facility must be limited by the use of fencing, berms, or natural barriers to control public access to the site. This should prevent unauthorized traffic or dumping. 18 AAC 60.220					
	No fence/barriers, open access, no restrictions	Barriers in poor condition, open access	Barriers in repairable condition, open access	Functional barriers, but open gates, open access	Functional barriers, locking gate, restricted hours	Functional barriers, locking gates, restricted hours, monitored






# More Access Control



**HOURS OF OPERATION**  
**Tuesday & Friday**  
**9:00 am – 5:00 pm (Closed 12:00 – 1:00 pm)**

# Burning

- Waste Separation
- Burn Management
- Burn Unit Used

Waste Separation

Burning of plastics, asphalts, rubber, tars, oily wastes, or other materials in a way that gives off black smoke is prohibited. 18 AAC 50.065(b)

No separation waste	Minimal separation of waste	Some separation of waste	Most wastes separated	Most wastes separated, separated waste properly disposed	All wastes separated & strictly monitored, all separated waste properly disposed
---------------------	-----------------------------	--------------------------	-----------------------	--	--





Waste Separation

Burning of plastics, asphalts, rubber, tars, oily wastes, or other materials in a way that gives off black smoke is prohibited. 18 AAC 50.065(b)

No separation waste	Minimal separation of waste	Some separation of waste	Most wastes separated	Most wastes separated, separated waste properly disposed	All wastes separated & strictly monitored, all separated waste properly disposed
---------------------	-----------------------------	--------------------------	-----------------------	--	--



**Burn  
Management**

Burning must be contained and controlled and managed to minimize adverse environmental effects and limit the amount of smoke generated.  
18 AAC 60.233, 18 AAC 60.355, 18 AAC 50.065(b)

No management of  
burning - evidence  
of large fires  
throughout the  
landfill

No burn  
management -  
evidence of small  
fires in the landfill

Burn unit or trench  
loaded by users,  
lit by users

Burn unit or trench  
loaded by users,  
lit by operator

Burn unit loaded  
and lit only by  
operator in  
appropriate weather

**Complete  
management:**  
waste kept dry;  
burn unit  
loaded, lit &  
monitored only  
by operator in  
appropriate  
weather



Complete management: waste kept dry; burn unit loaded, lit & monitored only by operator in appropriate weather



**Burn Management**

Burning must be contained and controlled and managed to minimize adverse environmental effects and limit the amount of smoke generated.  
18 AAC 60.233, 18 AAC 60.355, 18 AAC 50.065(b)

No management of burning - evidence of large fires throughout the landfill

No burn management - evidence of small fires in the landfill

Burn unit or trench loaded by users, lit by users

Burn unit or trench loaded by users, lit by operator

Burn unit loaded and lit only by operator in appropriate weather

**Complete management:**  
waste kept dry; burn unit loaded, lit & monitored only by operator in appropriate weather





**Burn Unit Type**

Uncontained burning of municipal waste on the ground is not allowed at Class III landfills. Burning may be conducted in a burn box, burn cage, or other device where burning is contained and controlled. 18 AAC 60.233, 18 AAC 60.355

**No burn unit****Burn unit onsite -  
limited functionality  
or use.****Functioning burn  
box or burning in a  
trench****Burn cage****Enclosed burn unit  
with smoke stack****Incinerator**

Is this a realistic goal? For most-no it's not.

**Burn Unit Type**

Uncontained burning of municipal waste on the ground is not allowed at Class III landfills. Burning may be conducted in a burn box, burn cage, or other device where burning is contained and controlled. 18 AAC 60.233, 18 AAC 60.355

**No burn unit****Burn unit onsite -  
limited functionality  
or use.****Functioning burn  
box or burning in a  
trench****Burn cage****Enclosed burn unit  
with smoke stack****Incinerator**

Is this a realistic goal? Yes!

# Landfill Operations

- Operator
- Equipment
- Working Face
- Compaction
- Cover
- Slopes & Grading
- Vector & Nuisance Control
- Litter
- Maintenance & Corrective Action
- Inactive Areas



Operator	An operator is one of three elements for a successful landfill program. RALO				
	No operator	Managed as emergency only	Managed periodically	Managed periodically by assigned personnel	Operator assigned to landfill, not allocated enough hours
					Operator assigned to landfill, allocated enough hours



Quiz: Does allocated enough hours mean full time?

	2014	2014	2016	2016
	Points/Possible	Percentage	Points/Possible	Percentage
Landfill Site Control	12/15	80	15/15	100
Burning	11/15	73	14/15	93
Landfill Operations	49/50	98	50/50	100
Landfill Water Impacts	15/15	100	15/15	100
Special Waste Management	30/30	100	50/50	100
Administration	16/20	80	19/20	95
Total	133/145	92%	163/165	99



The Golovin landfill was the highest scoring rural landfill in 2016. Golovin also scored higher than some of the large municipal landfills in Alaska, and this is not an insignificant achievement. Golovin is very fortunate to have one of the best Landfill Managers in the State of Alaska, Peter Olson, who has over 30 years of experience in solid waste management.

**Quiz: How Many Hours Does Peter Olson Work at the Landfill Every Two Weeks?**





Equipment

Properly sized and maintained equipment is one of three elements for a successful landfill program. RALO

No equipment

Broken but  
repairable  
equipment

Equipment  
borrowed -  
emergency only

Equipment  
borrowed - regular  
schedule

Dedicated landfill  
equipment - not  
properly stored or  
maintained

Dedicated  
landfill  
equipment -  
properly stored  
& maintained



Dedicated Landfill Equipment



# Maintained



Working Face	The working face must be kept as small as practical. 18 AAC 60.345					
	No designated working face, waste spread over entire landfill	Some attempt to keep waste to an specific area	Waste mostly in one area of the landfill	Dumping area identified, most waste limited to large dumping area	Dumping area identified, most waste limited to reasonably sized dumping area	Clearly identified dumping area, working face kept as small as practical



Trench and Fill in a small village



# Working Face- Area Fill



Area fill in a medium and a large village. Note- the working face doesn't have to be tiny, just controlled.



# Working Face- Continued



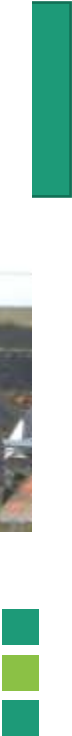
Modified area fill in a medium sized village and trench and fill in a large village.  
The working face is not tiny, just controlled. Do you agree?



Compaction	Compaction of waste will reduce the volume and extend the useable life of the landfill, and will reduce infiltration of water that can create leachate.					Compaction of waste more than 4 times per year with 4-6 passes of large tracked vehicle, waste is well compacted
	No effort to compact waste, uncontrolled waste	No effort to compact waste, equipment available	Compaction of waste, with poor results	Compaction of waste 1 - 4 times per year	Compaction of waste more than 4 times per year	



This is a compacted and covered metals area after a military demolition project in Pt. Lay. This was over 1000cy of metals compacted into a small area.



# Compaction Continued



Metals and inert waste cell in Pt. Hope. Last years section of the cell is already compacted and covered.



Cover

Waste must be covered by 6 inches of soil or an approved alternative cover as necessary to control disease vectors, fire, odor, blowing litter, and scavenging. 18 AAC 60.345

No cover applied,  
no cover available

No cover applied,  
cover available

Cover applied  
periodically, does  
not control issues,  
not stockpiled at  
landfill

Cover applied  
periodically, does  
not control issues,  
stockpiled at landfill

Cover applied as  
needed to control  
issues, cover not  
stockpiled at landfill

Cover applied as  
needed to control  
issues,  
**cover stockpiled  
at landfill**





Cover

Waste must be covered by 6 inches of soil or an approved alternative cover as necessary to control disease vectors, fire, odor, blowing litter, and scavenging. 18 AAC 60.345

No cover applied,  
no cover available

No cover applied,  
cover available

Cover applied  
periodically, does  
not control issues,  
not stockpiled at  
landfill

Cover applied  
periodically, does  
not control issues,  
stockpiled at landfill

Cover applied as  
needed to control  
issues, cover not  
stockpiled at landfill

Cover applied as  
needed to  
control issues,  
cover stockpiled  
at landfill



Before Cover (2012)



After Cover (2018)



Cover

Waste must be covered by 6 inches of soil or an approved alternative cover as necessary to control disease vectors, fire, odor, blowing litter, and scavenging. 18 AAC 60.345

No cover applied,  
no cover available

No cover applied,  
cover available

Cover applied  
periodically, does  
not control issues,  
not stockpiled at  
landfill

Cover applied  
periodically, does  
not control issues,  
stockpiled at landfill

Cover applied as  
needed to control  
issues, cover not  
stockpiled at landfill

Cover applied as  
needed to  
control issues,  
cover stockpiled  
at landfill



Before Cover



After Cover



Cover	Waste must be covered by 6 inches of soil or an approved alternative cover as necessary to control disease vectors, fire, odor, blowing litter, and scavenging. 18 AAC 60.345					
	No cover applied, no cover available	No cover applied, cover available	Cover applied periodically, does not control issues, not stockpiled at landfill	Cover applied periodically, does not control issues, stockpiled at landfill	Cover applied as needed to control issues, cover not stockpiled at landfill	Cover applied as needed to control issues, cover stockpiled at landfill



Before Cover



Approximate area where the red dumpster was in 2016.

After Cover

Cover

Waste must be covered by 6 inches of soil or an approved alternative cover as necessary to control disease vectors, fire, odor, blowing litter, and scavenging. 18 AAC 60.345

No cover applied,  
no cover available

No cover applied,  
cover available

Cover applied  
periodically, does  
not control issues,  
not stockpiled at  
landfill

Cover applied  
periodically, does  
not control issues,  
stockpiled at landfill

Cover applied as  
needed to control  
issues, cover not  
stockpiled at landfill

**Cover applied as  
needed to  
control issues,  
cover stockpiled  
at landfill**



Before Cover



After Cover



# Control, Consolidation, Compaction & Cover 4 C's

The entry way into the Golovin landfill is all compacted and covered trash. They will continue this process until the whole landfill looks like the entry way. Only an experienced Landfill Operator who had good control of the landfill could keep this going. Good job Golovin!





Slopes & Grading

The landfill should be graded and sloped to preserve the stability of the landfill and reduce ponding and erosion. 18 AAC 60.390, 18 AAC 60.243

Slopes unstable and ponds at the landfill, no efforts to correct	Slopes unstable and ponds at the landfill, some efforts to correct	Minor issues with instability, ponding, or erosion, no efforts to grade landfill	Minor issues with instability, ponding, or erosion, some efforts to grade landfill	Landfill graded, no ponding, erosion, or instability evident, inadequate run-on or run-off controls	Landfill actively graded to ensure stability, protect from erosion, prevent run-on, and promote run-off of storm or surface water
--	--	--	--	---	---



Berm in front of the trench to prevent water run on into trash. Landfill sloped to control water, with added measures to prevent water intrusion into the trash.



Landfill sloped to an engineered drainage system with erosion control measures in place.

Two examples of grading and slopes to properly control water.



# Sloped Landfill Towards Another Engineered Drainage System



Trash is placed at the highest point, furthest away from the drain.



Vector & Nuisance Control	Dust, odor, noise, traffic, other effects from the landfill, and disease vectors, including wildlife and domestic animals, must be controlled so that the public health, safety, or welfare are not endangered or they create a nuisance. 18 AAC 60.230, 18 AAC 60.233					
	Waste exposed to elements - flies, animals, humans, and vehicles track through waste	Few issues controlled, vector or health issues, and nuisance issues present	Some issues controlled, minor vector or health issues, and nuisance issues present	Most issues controlled, minor nuisance issues present	Issues controlled - public allowed in landfill	Issues controlled - only operator allowed in landfill



This is an example of a “5” that is the absence of a problem. It’s easier to show what it’s not.





# What it's Not



See all the black dots? Flies- thousands of flies ☹️  
Fish racks were only a few hundred feet away ☹️



Litter (in and around landfill)	Litter must be controlled so that it does not become a nuisance or hazard. 18 AAC 60.233, 18 AAC 60.345					
	Litter everywhere, no clean-up efforts	Annual litter clean-up, litter uncontrolled rest of the year	Litter issues, picked up intermittently throughout the year	Some litter issues, litter picked up regularly	No litter issues, litter picked up as needed	No litter issues, operator picks up litter as needed



This is another area where a “5” is the asbsence of a problem. Note- this does not mean there isn’t any litter at all- they are landfills. It means that it is controlled so that it doesn’t cause an issue. A good way to evaluate your landfill is to ask yourself- “Is it only on the inside of the landfill?”



**Maintenance & Corrective Action**

The landfill must maintain structures and components of the facility, and repair any structural changes or damage to the facility. 18 AAC 60.815

Significant damage that may impact health, safety or the environment, no plan for corrective action

Significant damage that may impact health, safety or the environment, corrective action planned

Significant damage that may impact health, safety or the environment, corrective action underway

Minor damage at the facility, no plan for corrective action

Minor damage at the facility, corrective action planned

No structural damage



The fence was in a state of disrepair in 2014 during the inspection. It was replaced in 2015, and photographs were sent in to ADEC.



# Next Inspection- Now No Structural Damage



Inspection in 2017- The fence is still up and looked great. Now they received a 5 in this category 😊



Maintenance & Corrective Action

The landfill must maintain structures and components of the facility, and repair any structural changes or damage to the facility. 18 AAC 60.815

Significant damage that may impact health, safety or the environment, no plan for corrective action

Significant damage that may impact health, safety or the environment, corrective action planned

Significant damage that may impact health, safety or the environment, corrective action underway

Minor damage at the facility, no plan for corrective action

Minor damage at the facility, corrective action planned

No structural damage



This is What Corrective Action of Structural Damage Looks Like  
Was This Planned? Yes!



Inactive Areas	Areas that have not received waste for more than 90 days, but have not yet reached the final capacity or elevation, must receive an intermediate cover. The area must be covered with 12 inches of soil and graded to prevent ponding and erosion. 18 AAC 60.243 Note, this is not closure. If an area is closed or should be under a closure plan, it should have 24" of soil cover and be revegetated.				
	No distinction between active & inactive areas	Inactive area separate from working face - uncovered	Inactive areas separate from working face - partially covered	Inactive areas separate from working face - covered with less than 12"	Inactive areas separate from working face - fully covered with 12", not graded to prevent ponding or erosion



What Do You See in These Areas That Used to be Cells? Nothing!



# Inactive Areas Over Time:

Cell 1  
Inactive  
for 15  
Years





# Landfill Water Impacts

- Leachate
- Surface & Storm Water Controls
- Impact to Permafrost or Wetlands
- Water Monitoring (If Required)

Leachate	Leachate means liquid that has passed through or emerged from solid waste and contains soluble, suspended, or miscible materials removed from the wastes. Leachate seeps must be prevented, or contained and controlled. 18 AAC 60.225					
	Leachate seeps present, no effort to contain or control	Leachate seeps present, some effort to contain or control	No leachate seeps observed, conditions likely to cause leachate, no effort to contain leachate	No leachate seeps observed, conditions likely to cause leachate, some effort to contain leachate	No leachate seeps observed, conditions likely to cause leachate, efforts to contain and prevent leachate	No leachate seeps observed, efforts in place to prevent leachate
Surface & Storm Water Controls	A landfill must be constructed and operated so that seasonal flooding is temporary in duration. Waste may not be placed in surface water. The landfill must minimize contact between stormwater and waste. Ponded water must be removed within 30 days. 18 AAC 60.225					
	Waste disposed into water body	Waste in contact with water regularly, no surface and storm water controls	Waste in contact with water, some surface and storm water controls, not effective	Some waste in contact with water, surface and storm water controls, ponding not removed within 30 days	Evidence of waste in water or ponding at the landfill, surface and storm water controls, ponding removed within 30 days	No evidence of waste in water or ponding at the landfill, berms, ditches and other controls are in place and are effective
Impact to Permafrost or Wetlands (only for facilities built on permafrost or wetlands)	If the landfill is located on permafrost, it must be designed and operated so that the permafrost remains frozen. If the landfill settles and water is pooling, the operator must take corrective action. 18 AAC 60.227 If the landfill is located in or near a wetland, it may not cause or contribute to significant degradation of the wetlands. 18 AAC 60.315					
	Permafrost appears to be melting around landfill; or wetland plants around landfill are clearly impacted - no corrective action plan	Permafrost or wetlands impacted - corrective action plan under development	Permafrost or wetlands impacted - corrective action underway but no evidence of improvement	Permafrost or wetlands impacted - corrective action in place has shown improvement	No clear impacts to permafrost or wetlands, but some indicators (small ponds, leachate, etc.) present	No indicators or impact to permafrost or wetlands are evident

This is another section where a “5” is the absence of something. Unfortunately there are plenty of examples of what it’s not.



# LEACHATE IN TUNDRA





# Leachate Seep











Burn Scar



Dead and Distressed  
Vegetation from  
Leachate Seep

2016





2020

This took 2+ years of hard work to address. Don't let it get that bad before you address your solid waste management issues. There can be significant consequences to local soils, subsistence resources, and water resources.

# Leachate

## Surface & Storm Water Controls

### Impact to Permafrost or Wetlands

Old Landfill

New Landfill



Now That We Showed What It's Not- Here's a Reminder of What It Should Look Like 😊



# Special Waste Management

- Septage
- Animal Carcasses including Subsistence Waste
- Household Hazardous Waste
- Liquid Waste
- Salvage Area
- Used Oil
- Vehicles
- Freezers & Refrigerators CFC's
- Lead Acid Batteries

**Septage including  
Honeybucket  
Waste**

The landfill may accept septage or honey bucket waste if it is deposited into separate trenches, less than 4' in depth, and the trench is maintained not to overflow. Hydrated lime must added to a pH of 12(30 min.) on a regular basis. 18 AAC 60.365

Septage co-mingled  
with MSW

Septage disposed in  
separate area of landfill

Septage in separate  
trench no lime added

Septage in properly  
constructed trench,  
lime added infrequently

Septage in properly  
constructed trench,  
lime added on a regular  
basis

Septage in  
properly  
constructed  
trench, lime added  
and pH tested



**Animal Trench Looks The Same**



Key Element- Not Gross!  
This is a sign of an outstanding  
Landfill Operator



# Lime- Critical for Both Septage & Animal Carcasses



It is perfectly acceptable to dispose of subsistence wastes in a traditional way. Landfill disposal is not mandatory.



Household  
Hazardous Waste  
(HHW)

Separating HHW out of the waste disposed at the landfill will help keep chemicals out of the landfill and reduce risks to human health and the environment. HHW can be reused within the community or shipped out for proper disposal.

No HHW separation	No HHW separation, regularly covered	HHW collection program available, accessible, but not well used	HHW collection program available, accessible, most HHW diverted from landfill	Clear options for HHW reuse or collection program, well run, most HHW diverted from landfill	Clear options for HHW reuse or collection program, well run, most HHW diverted from landfill, shipped out as needed
-------------------	--------------------------------------	---	---	--	---





BEFORE AND AFTER CRUSHING  
EMPTY/EVAPORATED GALLON  
TIN FUEL CANS





# Recycling Center



PAINTS/ SOLVENTS	LEAD-ACID BATTERIES	DISPOSE OF ANIMAL CARCASSES HERE	NO SHOOTING
PLASTICS #1 & #2	ALUMINUM CANS	FLUORESCENT LIGHT BULBS & TUBES	AEROSOL CANS
PLASTICS ALL OTHER	BURNABLE WASTE	INK CARTRIDGE TONERS	
PLASTIC BOTTLES	USED OIL	ELECTRONIC WASTE	

.086" X 12" X 18" Aluminum White Enamel Signs With Green Hp Vinyl Graphics.  
\$70.00 each x 14 = \$980.00.



vital-signs2010@live.com  
P.O. Box 210217  
Fairbanks, Alaska 99701  
1 Mile Cedar Road  
Fairbanks, Alaska 99709  
907.479.7692  
907.479.6197

SEARCH FOR  
Patricia Sullivan  
Chalkyitsak Village Council  
12 Sept.  
© 2010 VITAL SIGNS, INC.

**Liquid Waste**

Liquid waste, including kitchen grease, may not be disposed at the landfill, with the exception of small quantities (1 gallon or less) of containerized waste. 18 AAC 60.360

Non-household liquids  
over 1 gallon containers  
disposed in landfill

Free liquids not  
prohibited, but limited  
to less than 1 gallon  
container

Free liquids prohibited  
at landfill, alternatives  
not well identified

Free liquids prohibited  
at landfill, alternatives  
identified, not well used

Free liquids prohibited  
at landfill, alternatives  
identified, generally  
used

Free liquids  
prohibited and  
enforced,  
alternatives  
identified, and  
widely used





## Construction & Demolition Debris (C&D) non-RACM

C&D is regulated based on local laws and ordinances. However, all construction projects should submit a building survey to ensure that all hazardous & asbestos waste are removed prior to disposal. Non-RACM waste must be handled so that it does not become friable and be covered within 24 hours without compaction to prevent the release of asbestos fibers. 18 AAC 60.450

No controls for C&D, indiscriminately disposed, no requirements for identifying or managing non-RACM

C&D disposed at working face, no awareness or management of non-RACM

C&D disposed at working face or separate cell, awareness of non-RACM, not covering

C&D disposed at working face or in separate cell, not well managed - large pile.  
Aware of non-RACM, usually covered in 24 hours

C&D well managed, not frequently compacted. Contractors required to identify non-RACM - not allowed or is properly managed and covered in 24 hours

C&D well managed and compacted frequently - small pile. Contractors required to identify non-RACM - not allowed or is properly managed

### North Slope Borough PUBLIC WORK

#### Application for Direct Landfill



#### APPLICANT INFORMATION

Applicant Name: UTC CONSTRUCTION  
 Company: UTC CONSTRUCTION (BRANDON NILES)  
 Address: 6700 ARCTIC STAR RD ANCHORAGE AK 99518  
 Day Time Phone: 907-855-1400 Home Phone: 907-855-1400  
 Vehicle Description: UTC SEMI & TRAILER  
 License Plate Number: N/A

Approval of applications will be authorized only for the materials described below in the quantities shown. NSB Public Work will attempt to meet the requested schedule for delivery, however regularly scheduled operations and unexpected conditions may take precedence over the permitted delivery. Adverse weather conditions will delay receipt of wastes.

#### WASTE INFORMATION

Project generating Waste: UTC 40 MAN CAMP  
 Type of Material to be disposed of: ATCO MODULAR BLDG'S  
 Volume of Material to be disposed: 8 MODULAR BLDGS  
 Requested Date and Time for disposal: 9/13 + 9/20/13

Delivery of wastes will be coordinated with NSB Public Work's personnel. No wastes will be delivered without NSB Public Work's landfill personnel present at the landfill. Wastes will be deposited in the active waste cell where directed by NSB Public Work's personnel.

The North Slope Borough does not assume responsibility for materials delivered to the landfill that are hazardous in nature. Costs associated with removal, proper disposal and landfill remediation shall be the sole burden of the parties involved in the infraction of the North Slope Borough Ordinances.

This application can only be signed by an authorized representative in direct understanding of wastes to be disposed and with the authority to obligate corporate assets for the purpose of remediation activities should hazardous waste be disposed

#### CERTIFICATION

I have read and understand the North Slope Borough Barrow Landfill Zoning Permit and the above conditions for direct disposal of waste in the Barrow Landfill. I hereby certify that I have knowledge of the wastes, that either I or my designee will deliver to the landfill, and that no listed hazardous wastes will be hauled to the landfill for disposal. In addition, should hazardous wastes be delivered to the landfill, I understand the costs associated with this, as well as have the authority to mobilize labor, equipment, and materials needed to effect a complete remediation of the landfill, and shall accept all imposed fines related to this infraction.

BRANDON NILES  
 Applicant Name

BWN  
 Applicant Signature

9/18/13  
 Date

#### APPLICATION REVIEW

☒ APPLICATION APPROVED

☐ APPLICATION REJECTED

#### REASON FOR REJECTION

Robert L. Toalston  
 Reviewer Name

R L Toalston III  
 Reviewer Signature

9-18-13  
 Date

Construction & Demolition Debris (C&D) non-RACM

C&D is regulated based on local laws and ordinances. However, all construction projects should submit a building survey to ensure that all hazardous & asbestos waste are removed prior to disposal. Non-RACM waste must be handled so that it does not become friable and be covered within 24 hours without compaction to prevent the release of asbestos fibers. 18 AAC 60.450

No controls for C&D, indiscriminately disposed, no requirements for identifying or managing non-RACM	C&D disposed at working face, no awareness or management of non-RACM	C&D disposed at working face or separate cell, awareness of non-RACM, not covering	C&D disposed at working face or in separate cell, not well managed - large pile. Aware of non-RACM, usually covered in 24 hours	C&D well managed, not frequently compacted. Contractors required to identify non-RACM - not allowed or is properly managed and covered in 24 hours	C&D well managed and compacted frequently - small pile. Contractors required to identify non-RACM - not allowed or is properly managed
--	--	--	---	--	--





Salvage Area	Public salvaging, if allowed, must be limited to an area that does not hinder facility operation, create a safety hazard, or cause pollution. 18 AAC 60.220					
	Uncontrolled salvaging allowed at working face	Salvaging at working face only when operator present	Separate salvage area, no apparent organization or management	Separate salvage area, some organization or management.	Salvage area has defined locations for different items, fluids are drained or contained (liner), operated safely	Salvage area managed well (see 4), items removed for disposal or backhaul regularly - signs posted



Public salvaging, if allowed, must be limited to an area that does not hinder facility operation, create a safety hazard, or cause pollution. 18 AAC 60.220						
Salvage Area	Uncontrolled salvaging allowed at working face	Salvaging at working face only when operator present	Separate salvage area, no apparent organization or management	Separate salvage area, some organization or management.	Salvage area has defined locations for different items, fluids are drained or contained (liner), operated safely	Salvage area managed well (see 4), items removed for disposal or backhaul regularly - signs posted







*items removed for disposal or backhaul regularly - signs posted*





Used Oil

Separating used oil out of the waste disposed at the landfill will help keep petroleum products out of the landfill and the environment, and can be reused as an energy resource for the community.

Used oil not managed - disposed at the landfill	Some used oil collected, not stored safely, no plan for disposal or energy recovery	Some used oil collected, not stored safely, burned without energy recovery	Used oil collected, stored safely. Burned without energy recovery	Used oil collected and safely stored. Burned for energy recovery or shipped out	Enforcement of used oil collection and safe storage. Burned for energy recovery in an EPA approved unit or shipped out
---	---	--	---	---	--





Vehicles

Vehicles may not be disposed at the landfill unless all fluids and batteries have been removed. If undrained vehicles are stored at the landfill for later disposal or recycling, they must be managed to prevent release of fluids. 18 AAC 60.035, 18 AAC 60.010

<b>Uncontrolled disposal - Vehicles disposed in landfill, fluids &amp; batteries not removed</b>	<b>Vehicles stored in separate area of landfill, no fluids or batteries removed. No containment for leaks. No plans for disposal or recycling</b>	<b>Vehicles stored in separate area of landfill, some fluids or batteries removed. No containment for leaks. Plans for disposal or recycling</b>	<b>Vehicles stored in separate area of landfill, some fluids or batteries removed. Containment for leaks. Plans for disposal or recycling</b>	<b>All batteries and fluids removed prior to proper disposal or recycling</b>	<b>Operator verifies ALL batteries and fluids removed prior to proper disposal or recycling</b>
--	---	--	---	---	---



## Freezers & Refrigerators CFCs

Chlorofluorocarbon (CFCs) must be removed from appliances by a certified technician with certified equipment prior to disposal at any landfill. No CFCs may be vented to the environment. 40 CFR 81.154-162

Disposed of with general waste, CFCs intentionally vented to the environment	Disposed of with general waste, no CFCs removed	Some units segregated, no CFCs removed and no plan	Some units segregated, some CFCs removed but no documentation or marking	Units segregated, CFCs sporadically removed by certified tech & documented, properly disposed or recycled	Units segregated, ALL CFCs regularly removed by certified tech & documented, properly disposed or recycled
--	---	--	--	---	--



Jerry Sam, TCC Solid Waste Specialist. He is a certified technician using certified equipment that drains CFC's from their villages white goods.





Lead Acid Batteries

Prohibiting disposal of lead acid batteries from the landfill will reduce the risks of environmental contamination. Batteries should be stored in a lined, covered container or area, and managed to prevent any release to the environment.

Lead acid batteries disposed in landfill	Some lead acid batteries segregated but poorly stored at landfill	Most lead acid batteries segregated but poorly stored	Most lead acid batteries segregated and stored to prevent leaks, but not covered	All lead acid batteries segregated, properly stored	All lead acid batteries segregated, properly stored, and regularly shipped out
--	---	---	--	---	--



Can Be Collected Outside- But it  
Better Be Bone Dry on the Inside ☺





# Administration

- Permit
- Monthly Visual Monitoring
- Operations Plan
- Facility Location

You Guessed It!

This is the Planning & Paperwork Section.

# Administration- In Summary- Be Like Patricia Salmon from Chalkyitsik ☺





# Questions?

